



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,863	08/22/2003	Thor Simon	TLSI.P001-2	1862
57380	7590	08/06/2007	EXAMINER	
Oppedahl Patent Law Firm LLC P.O. BOX 4850 FRISCO, CO 80443-4850			HYUN, SOON D	
		ART UNIT	PAPER NUMBER	
		2616		
		NOTIFICATION DATE	DELIVERY MODE	
		08/06/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket-oppedahl@oppedahl.com

SF

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/604,863	SIMON, THOR	
	<b>Examiner</b>	<b>Art Unit</b>	
	Soon D. Hyun	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 August 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,2,4,6-18,21,23-26,28,31,33 and 34 is/are rejected.
- 7) Claim(s) 3,5,19,20,22,27,29,30,32 and 35 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/3, 9/8/03</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 2 and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,678,242 in view of Bell et al U.S. Patent Number 6,587,460.

Claim 1 of the Patent '242 teaches the embodiments of claims 2 and 8 of present application except "means for receiving...stripping flag octet and CRC bits before...encapsulation..". However, Bell et al teaches stripping of the CRC before encapsulation because it is not required for isochronous signaling channel transport (See col. 10, lines 48-54). One skilled in the art would have been motivated to remove

unnecessary information to eliminate processing of unnecessary information in the SS7 network. In this case, the CRC and flag octet can be stripped from the packet before encapsulating SS7 into the signaling network. Therefore, it would have been obvious to one ordinary skilled to combine the references.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 9, 11, 12-16, 21, 23, 24, 28, 31, 33 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Prasad et al (PG-PUB 2003/0016684).

Re Claims 9, 13-16, and 24, in fig. 3, a STP 20 A and STP 20 C (first and second apparatus) each have ports for sending SS7 messages (signaling information: common channel signaling data for telephone call processing) each located at physical locations; STP(s) are connected over a IP network 110 (WAN message protocol) wherein the path between the STP comprises of an arbitrary number of hops; fig. 8 step 390 teaches a first STP for encapsulating a call connection request (means receiving coming channel signaling data) over a respective port; step 400 teaches a second STP for de-capsulating the SS7 signal and step 420 teaches transmitting the SS7 over an SS7 link.

(extracting...transmitting said common channel signaling data) [0044 +]; fig. 9 teaches that a plurality of STPs perform updating of the routing table defining the destination for the SS7 destination [0044].

Re Claim 11, refer to Claim 9, wherein the SS7 link is a synchronous port and the WAN is packet switch.

Re Claims 12, 21, and 31, refer to Claim 9, wherein the IP network is Internet.

Re Claims 23 and 33, refer to Claim 16, wherein the SS7 signaling traffic supports MTP2 layer [0038].

Re Claims 28 and 34, refer to Claim 9, wherein fig. 5 teaches data structure for the routing table and includes the point codes whereby the STP determines and identifies the destination based on these code comparisons (means for comparing).

#### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2616

7. Claims 1, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al (PG-PUB 2003/0016684 ) in view of Bell et al (U.S. Patent Number 6,587,460).

Re Claims 1 and 7, Prasad et al teaches in fig. 3, a STP 20 A and STP 20 C (first and second apparatus) each have ports for sending SS7 messages (signaling information: common channel signaling data for telephone call processing); STP(s) are connected over a IP network 110 wherein the path between the STP comprises of an arbitrary number of hops; fig. 8 step 390 teaches receiving IP packet encapsulating a call connection request (means receiving coming channel signaling data) over a respective port; step 400 teaches de-capsulating the SS7 signal and step 420 teaches transmitting the SS7 over an SS7 link (extracting...transmitting said common channel signaling data) [0044 +]. Prasad et al fails to teach "means for receiving...stripping flag octet and CRC bits before...encapsulation.". However, Bell et al teaches stripping of the CRC before encapsulation because it is not required for isochronous signaling channel transport (See col. 10, lines 48-54). One skilled in the art would have been motivated to remove unnecessary information to eliminate processing of unnecessary information in the SS7 network. In this case, the CRC and flag octet can be stripped from the packet before encapsulating SS7 into the signaling network. Therefore, it would have been obvious to one ordinary skilled to combine the references

Re Claim 4, refer to Claim 1, wherein the IP network supports TCP/IP.

Re Claim 6, refer to Claim 1, wherein the SS7 signaling traffic supports MTP2 layer [0038].

8. Claims 10, 17, 18, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al (PG-PUB 2003/0016684).

Prasad fails to explicitly teach that the encapsulated packets are encrypted by a cryptographic means at the STP. One skilled in the art recognizes that the WAN is public network and various encryption/compression protocols are available for transmission over the TCP/IP network. One skilled in the art would have been motivated to encrypt the encapsulated packet with a known protocol for security. Therefore, it would have been obvious to one ordinary skilled to encrypt/compress the IP packet for security in the public network.

***Allowable Subject Matter***

9. Claims 3, 5, 19, 20, 22, 27, 29, 30, 32, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to teach establishing an on demand communication channel for receiving common channel signaling data responsive to failed test of packet-switched communications channel in specific combination as recited in claims 1, 3, 5, 19, 27, 29 and 35.

Art Unit: 2616

**Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



S. Hyun  
7/30/2007



CHI PHAM  
SUPERVISORY PATENT EXAMINER  
8/1/07